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State of New Jersey
DEPARTMENT OF HEALTH

CN 360
TRENTON, N.J. 08625-0360

CHRISTINE TODD WHITMAN
GOVERNOR

LEN FISHMAN
COMMISSIONER OF HEALTH

TO: David Hutchins; ATSDR, Technical Project Officer
FROM: James Pasqualo; NJDOH, ATSDR Project Manager
DATE: June 24, 1996
SUBJECT: Site Visit Report; LCP Chemical Site

Attached is a site visit report package regarding the *LCP Chemical* site. Included in this package are:

- 1) A site summary checklist.
- 2) Site narrative.
- 3) A site location map (coordinates 40' 36.43" N, 74' 12.62" W)

The NJDOH performed a site visit at the LCP Chemical site on May 2, 1996. This was in response to a request from the United States Environmental Protection Agency to ascertain the nature and extent of potential human exposure pathways at the site.

It is our evaluation that although metals (mercury, and to a lesser extent arsenic) are present in concentrations exceeding ATSDR comparison values, there are no completed or anticipated human exposure pathways associated with the site under present conditions.

The site is an inactive industrial facility. Although physical hazards exist on the site, it is not an area where trespassing is likely. Off-site contact by adults or children with site related contaminants is unlikely under present conditions.

Level D protection is adequate for visiting the site under present conditions. Additional activity by the ATSDR or the NJDOH is not indicated at this time. The NJDOH recommends revisiting the site subsequent to commencement of remedial activity by the USEPA.

c./with attachments

File

Site Summary Form

CERCLIS NO. ?

Date Prepared 6/18/96

Preparer Jim PASQUARO
NJDOH

ATSDR SITE SUMMARY

I. GENERAL INFORMATION

Site Name: LCP CHEMICAL

(Include other names by which site is known.)

Region: 2 City: LINDEN County: UNION State: NJ

Site Management Responsibility

☒ Fund Lead ☐ Enforcement Lead (PRP)
☐ State Lead ☐ Federal Facility

Remedial Schedule Status

☒ PA/SI
☐ Workplan Development
☐ RI scheduled/under way
☐ Other _____

40° 30' 42" N
74° 12' 62" W

II. DATA/INFORMATION REVIEW

(Review of EPA Site File(s) and, where appropriate, include State monitoring information)

II.A. Bibliography of Data/Information Sources:

Document	Date of Document
1 <u>NOTHING HAS BEEN SENT TO</u>	_____
2 <u>ATSDR / NJDOH</u>	_____
3 _____	_____
4 _____	_____
5 _____	_____
6 _____	_____

Site Summary Form

II.E. Site Access Restrictions

1. ☐ Unrestricted Access
2. ☒ Restricted Access (Explain Below)

COMMENTS: (e.g., type of restrictions, restricting authority, etc.)

Former industrial site. There is a
fence which would prevent access to
hazards.

II.F. Removal Actions

1. Have removal actions occurred? ☒ Yes ☐ No
2. Describe the removal actions:

On site lagoon was closed + capped
Monitoring wells installed.

II.G. Population

1. Distance to closest residence: 1/2 mile (NOTHING WITHIN 1/4 mile)
2. Size of population within a 1/2 mile radius of the site: 38
3. Special population concerns: ☐ Yes ☒ No
(Are there schools, nursing homes, hospitals, parks, playgrounds, etc., within the radius?)

COMMENTS:

II.H. Environmental/Exposure PathwaysII.H.1. Groundwater

Private Wells

- a. There are private wells in use within the vicinity of the site.
☐ Yes ☒ No? ☐ No data/information available within a radius of _____ miles.

→ UNKNOWN, BUT PROBABLY NOT.

N/A

- b. Private well is used for:

- | | |
|---|---|
| 1. <input type="checkbox"/> Drinking | 4. <input type="checkbox"/> Livestock |
| 2. <input type="checkbox"/> Cooking | 5. <input type="checkbox"/> Irrigation of crops |
| 3. <input type="checkbox"/> Other domestic uses | 6. <input type="checkbox"/> Other |

N/A

- c. There is reason to believe that the private wells are _____ are not _____ contaminated because of:

- | |
|--|
| 1. <input type="checkbox"/> Private well data |
| 2. <input type="checkbox"/> Monitoring well data |
| 3. <input type="checkbox"/> Public system data |
| 4. <input type="checkbox"/> Other _____ |

- d. The earliest documented date of private well contamination is: _____

Public Wells

- a. There are public/municipal wells in use within the vicinity of the site.
☐ Yes ☐ No ☒ No data/information available within a radius of _____ miles.

N/A

- b. Public well water is used for:

- | | |
|---|---|
| 1. <input type="checkbox"/> Drinking | 4. <input type="checkbox"/> Livestock |
| 2. <input type="checkbox"/> Cooking | 5. <input type="checkbox"/> Irrigation of crops |
| 3. <input type="checkbox"/> Other domestic uses | 6. <input type="checkbox"/> Other |

N/A

- c. There is reason to believe that the public wells are _____ are not _____ contaminated because of:

- | |
|--|
| 1. <input type="checkbox"/> Private well data |
| 2. <input type="checkbox"/> Monitoring well data |
| 3. <input type="checkbox"/> Public system data |
| 4. <input type="checkbox"/> Other _____ |

N/A

- d. The earliest documented date of well contamination is: _____

Comments on private/public/irrigation well contamination: _____

Site Summary Form

II.H.2. Surface Water

- a. Are any of the following categories of surface water located on-site (or passing through the site):

☐ Drainage ditch (or intermittent stream)
☒ Stream or creek
☐ River
☐ Wetlands, pond, or lake

Surface water is used for:

☐ Drinking ☐ Cooking ☐ Fishing
☐ Livestock ☐ Swimming ☐ Irrigation
☐ Other _____

N/A

Surface water treated prior to use:

☐ unknown ☐ no ☐ yes

Name of system owner: _____

N/A

- b. Are any of the following categories of surface water adjacent to (bordering) the site:

☐ Drainage ditch (or intermittent stream)
☒ Stream or creek
☐ River
☐ Wetlands, pond, or lake

Surface water is used for:

☐ Drinking ☐ Cooking ☐ Fishing
☐ Livestock ☐ Swimming ☐ Irrigation
☐ Other _____

N/A

Surface water treated prior to use:

☐ unknown ☐ no ☐ yes

Name of system owner: _____

N/A

- c. Are any of the following categories of surface water impacted by the site:

☐ Drainage ditch (or intermittent stream): Distance to _____
☒ Stream or creek: Distance to _____ ADJACENT TO LAGOON
☐ River: Distance to _____
☐ Wetlands, pond, or lake: Distance to _____

Surface water is used for:

☐ Drinking ☐ Cooking ☐ Fishing
☐ Livestock ☐ Swimming ☐ Irrigation
☒ Other NOT USED

Surface water treated prior to use:

☐ unknown ☐ no ☐ yes

Name of system owner: _____

N/A

(JAN 11, 1995)

SOURCE(s): LCP Chained Lagoon / Landfill.

a. Off-site soil contamination confirmed: ☐ Yes ☒ No
Confirmed by: ☐ Sampling ☐ Visible evidence

b. On-site soil contamination confirmed: ☒ Yes ☐ No
Confirmed by: ☐ Sampling ☐ Visible evidence

c. The public is likely to come in contact with contaminated soil:
☐ Yes Contact will occur: ☐ Off-site ☒ On-site
Explain in Comments Section

(X) No - NOT LIKELY BUT POSSIBLE

d. On-site employees are likely to come in contact with contaminated soil: ☐ Yes ☒ No

→ NO EMPLOYEES PRESENTLY

e. The earliest documented data of soil contamination is:

[] Off-site

☒ On-site

1982

F. Comments:

0-2 FEET \rightarrow 36-722 mg/Kg Hg

SURFACE SOILS AT LAGOON 27 - 1,500 mg/kg Hg

SOURCE(s):

Site Summary Form

II.H.4. Ambient Air

- a. Release of volatiles or gases has been measured:
☐ Yes ☒ No

Measurements were taken: ☐ On-site ☐ Off-site ☐ In Residence

SOURCE(s): NO DATA

There is a history of odor complaints in the vicinity of the site:

☐ Yes ☒ No Explain: NO INFORMATION

SOURCE(s): _____

- b. A release of airborne particulates has occurred:

☐ Yes Release confirmed by: ☐ Air sampling
☒ No ☐ physical evidence

SOURCE(s): _____

- c. Comments on Ambient Air:

NO AIR DATA AVAILABLE FOR REVIEW

SOURCE(s): _____

II.H.5. Food Chain

- a. Crops

1. Are grown in the vicinity of the site: ☐ Yes ☒ No
Type ☐ Commercial agriculture ☐ Residential gardens

2. Crops likely to be contaminated: ☐ Yes ☒ No

3. Verified by ☐ Sampling
☒ Observation (evidence of migration or stressed vegetation)

4. Crops (list) _____

COMMENTS: NO AGRICULTURAL AREAS NEAR THE SITE

VI. HUMAN EXPOSURE PATHWAYSA. Opportunity for human exposure to groundwater contamination:

1. ☐ has occurred ☐ is occurring - ☒ is not occurring
☐ is potentially occurring ↳ NO EVIDENCE OF GW USAGE.
- N/A 2. If exposure occurred:
☐ >10 yrs ago ☐ 1-10 yrs ago ☐ <1 yr ago ☐ unknown

- N/A 3. Route of exposure:
- ☐ ingestion
 - ☐ inhalation
 - ☐ dermal contact

B. Opportunity for human exposure to surface water contamination:

1. ☐ has occurred ☐ is occurring ☐ is not occurring
☒ is potentially occurring
2. If exposure occurred:
☐ >10 yrs ago ☒ 1-10 yrs ago ☐ <1 yr ago ☐ unknown

3. Route of exposure:
- ☐ ingestion
 - ☐ inhalation
 - ☒ dermal contact
- EXPOSURE POSSIBLE, NOT LIKELY TO OCCUR AT LEVELS OF PUBLIC HEALTH CONCERN.

C. Opportunity for human exposure to soil contamination:

1. ☐ has occurred ☐ is occurring ☒ is not occurring
☐ is potentially occurring POSSIBLE, BUT NOT LIKELY TO OCCUR AT LEVELS OF PUBLIC HEALTH CONCERN.
2. If exposure occurred:
☐ >10 yrs ago ☒ 1-10 yrs ago ☐ <1 yr ago ☐ unknown

3. Route of exposure:
- ☒ ingestion
 - ☒ inhalation
 - ☐ dermal contact

D. Opportunity for human exposure to airborne contamination:

- NO DATA {
1. ☐ has occurred ☐ is occurring ☐ is not occurring
☐ is potentially occurring
 2. If exposure occurred:
☐ >10 yrs ago ☐ 1-10 yrs ago ☐ <1 yr ago ☐ unknown
 3. Route of exposure:
☐ inhalation
☐ dermal contact

IV. INTERVIEWS: PERSONS KNOWLEDGEABLE ABOUT THE SITE

The interview objectives are:

1. to verify information found in the site file review and
2. to acquire essential information not found in the site file(s).

A. Name: STEVE JONES Organization ATSDR / REG II Date _____

Comments: _____

PRESENT ON SITE VISIT 212-637-4306

B. Name: NICK MARRIPLES Organization USDA Date _____

Comments: _____

SITE MANAGER

PH: 908 906-6930

FX: 906-6182

FX: 321 426-8425

C. Name: _____ Organization _____ Date _____

Comments: _____

Site Summary Form

N/A

- E. Opportunity for human exposure to food that has been contaminated through the food chain or by exposure to the site:
1. ☐ has occurred ☐ is occurring ☐ is not occurring
☐ is potentially occurring
 2. If exposure occurred:
☐ >10 yrs ago ☐ 1-10 yrs ago ☐ <1 yr ago ☐ unknown
 3. Route of exposure:
☐ ingestion

- F. Any other relevant human exposure information (historical exposure)?

VII. General Comments (optional):

See Attached —

LCP Chemicals, Inc.

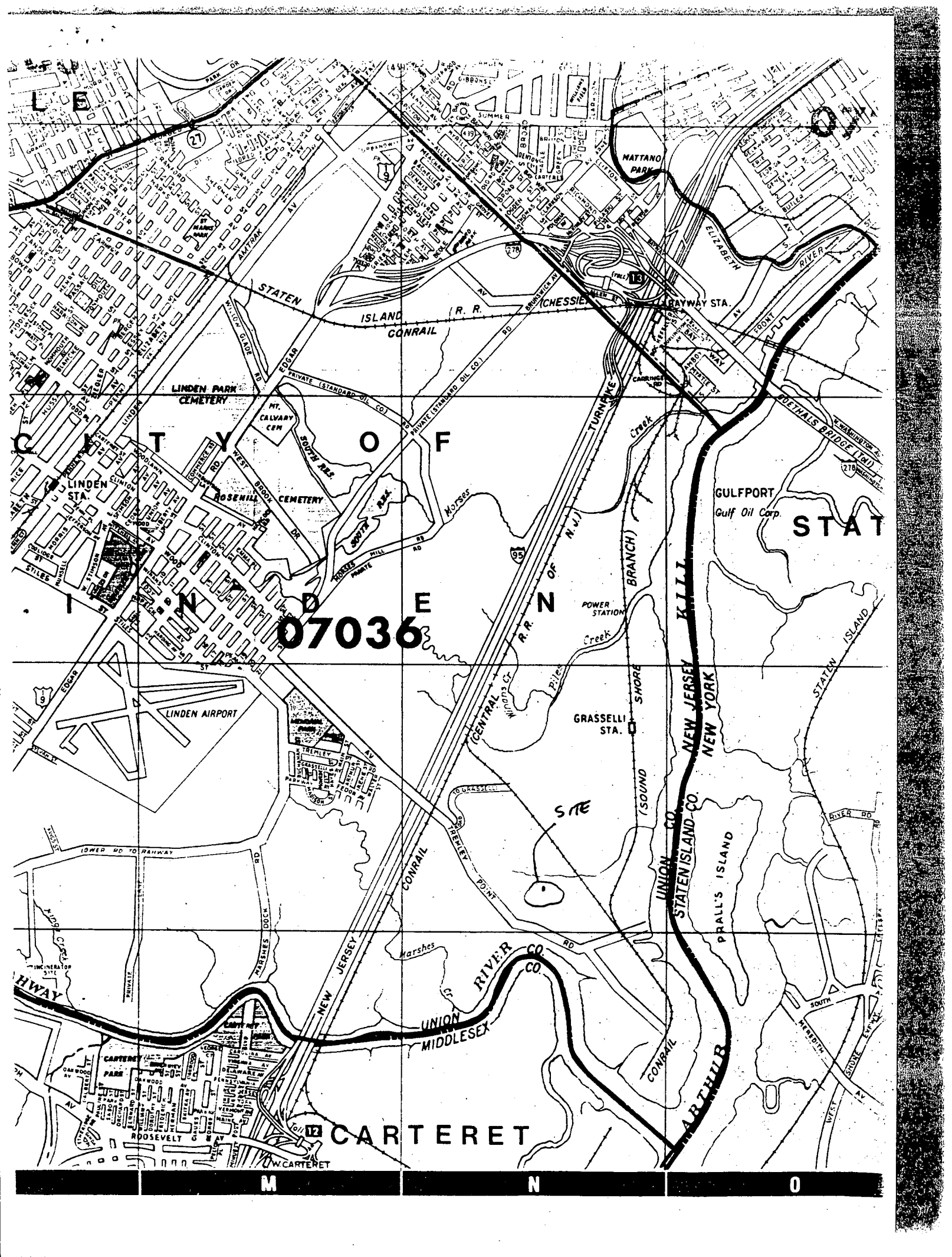
The LCP Chemicals Site is situated off of South Wood Avenue on the Tremley Point peninsula adjacent to the Arthur Kill, in Linden, Union County, NJ. The site is located in an industrial area and is bordered by the South Branch Creek (SBC) to the east, GAF Corporation to the north, and Northvill Industries, BP Corporation, and Mobil to the northeast, south, and west, respectively. The facility produced chlorine using a mercury cell electrolysis process at this location from 1972 to some time in 1994. Metallic mercury was partially recovered and the residuals were placed into an onsite lagoon.

It is reported that in the past there have been leaks and breaches from the impoundment onto the ground surface and into the South Branch Creek. The lagoon was closed in 1984 through dewatering, compaction and capped with a two foot clay layer. Its volume is estimated to be 30,000 cubic yards. During installation of monitoring wells in 1982, mercury was discovered in the soil at 0-2 foot in depth at concentrations ranging from 36 mg/kg to 772 mg/kg. Surface soils (actual depth unknown) collected from the perimeter of the lagoon at that time indicated mercury levels ranging from 27 mg/kg to 1,580 mg/kg.

On January 11, 1995, an EPA pre-remedial contractor collected three surface soil samples (0-6 inches), ten surface water samples, and eight sediment samples. The highest level of mercury noted in the surface soils was 110 mg/kg. The average concentration of mercury in the downstream sediments of the South Branch Creek was 500 mg/kg. The highest concentration was 1,060 mg/kg. It is believed that the sediments were collected near the water's edge. Mercury was detected in the surface water at 93 ug/l near the LCP outfall.

Arsenic was also present in most of the samples also. The highest level in the soil was 17 mg/kg, in the surface water it was 336 ug/l, and in the sediment it was 318 mg/kg.

Currently, the plant is vacant. A tank washing company leases a small portion of the property approximately 400 feet from the lagoon. Except for a Northville Industries oil tank farm, there are no other occupied structures present around the site for at least 1/4 mile. The population within 1/2 mile of the site is estimated to be 38. The tank farm is present on both sides of the lagoon. An access road for the tank farm passes directly adjacent to the berm of the lagoon, which is elevated approximately 20 feet above the roadway. During a recent site visit, some erosion of the impoundment's berms was observed in all directions, including on this roadway. The lagoon is also accessible from the plant since the gate is unlocked. Indications of vandalism are evident in portions of the vacant plant.



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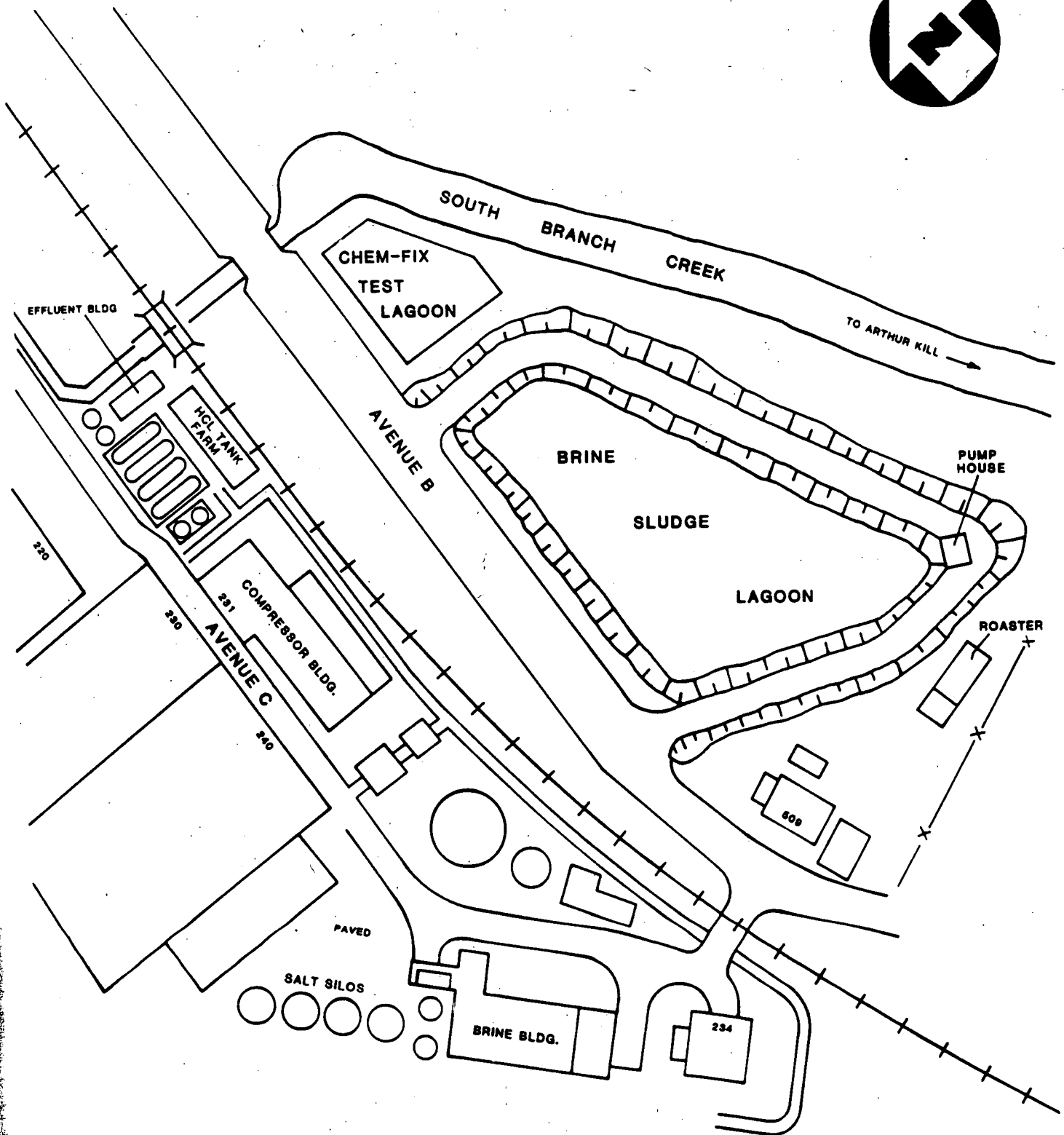
SITE

CARTERET

M

N

O



SITE MAP
LCP CHEMICALS SITE, LINDEN, N.J.
SCALE: 1" = APPROX. 100'

FIGURE A-2



A Halliburton Company

246102